

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph at page 1, line 26 - page 2, line 5 with the following paragraph:

Another technique used to measure head media spacing modulation is with use of a harmonic ratio. Such a technique to measure head media clearance is described in U.S. Pat. No. 4,777,544, which is incorporated by reference herein. With use of that disclosed method, the harmonic ratio of the readback signal is measured at normal fly height. The slider and head are then lowered to near contact by lowering disc speed, and the harmonic ratio is measured again at near contact. The head media clearance is then calculated at ~~[[a]]~~ discrete locations based on the two harmonic ratio measurements. This static measurement of head media spacing can give a good measurement of the distance of the head to the media at any particular specified location.

Please replace the paragraph at page 4, lines 6-14 with the following paragraph:

FIG. 2 shows a block diagram of data processed with disc drive 10 in accordance with the present invention. As previously described, transducing head 20 passes over the magnetic media 12 reading the signal stored therein and the readback signal is sent to DAPS 22. Block 30 illustrates that DAPS 22 collects the readback signal and ~~digitized~~ digitizes the collected data. The readback signal is an alternating signal that includes a fundamental frequency and higher harmonics. The magnetic pattern on the media may contain a variety of patterns that include high harmonics such as single or triple harmonic patterns. The digitized data may then be stored or processed, as indicated in block 32.

Please replace the paragraph at page 5, lines 14-25 with the following paragraph:

FIG. 3B illustrates a zoomed-in portion of the readback waveform for a single microsecond. The amplitude and readback signal ~~[[is]]~~ are more readable in the zoomed-in format. In accordance with the present invention, the zoomed-in portion of the readback signal represents a sampling

interval of the readback signal, which in this case is one microsecond. Using the 1 GHz sample rate for the readback signal produces 1000 data points for the selected sampling interval. These data points are then used to calculate the frequency spectrum for the sampling interval. Specifically, the frequency spectrum is derived from the digitized data for the sampling interval of the readback signal. This may be accomplished by a fast Fourier transform, discrete Fourier transform, or any similar processing technique. FIG. 3C shows the calculated frequency spectrum of the readback signal for the sampling interval after application of such technique.